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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,383	02/22/2002	John H. Shadduck	S-ACI-002A	9707
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John H. Shadduck 1490 Vistazo West Tiburon, CA 94920				
EXAMINER MULLEN, KRISTEN DROESCH				
ART UNIT      PAPER NUMBER				
3762				

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/081,383

Applicant(s)

SHADDUCK, JOHN H.

Examiner

Kristen Mullen (formerly  
Droesch)

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 7, 8 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-13 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 14-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Species I: Embodiment shown in Figs. 3-6.

Species II: Embodiment shown in Figs. 8A-8D, 9, and 11.

Species III: Embodiment shown in Figs. 12A-12B

Currently, claims 1, 9, and 13 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the **allowance** of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the

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prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with John Shadduck on 9/22/04 a provisional election was made with traverse to prosecute the invention of Species I, claims 1-6, and 13-19. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-8, and 20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Objections***

3. Claim 4 is objected to because of the following informalities: Claim 4 is dependent upon itself. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3-4, and 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 4 recite the limitation "said volume of electroactive particles" in lines 1 respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "said anode composition" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "said cathode composition" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-6, 9, 13, and 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoegnelid et al. (5,458,630).

Regarding claim 1, Hoegnelid et al. shows a device comprising: an implantable body defining a volume and dimensions suited for implantation at a targeted site in the patient's vasculature (Fig. 1, 4); and an electrical charge source (24, 24a, 28, 32, 24, 60, 62, 64, 66) carried by the said body (Figs. 1-5b, 8-13).

With respect to claim 2, Hoegnelid et al. shows the electrical charge source comprises a volume of electroactive particles (ions) carried by portions of said implantable body (Col. 5, line 61-Col. 6, line 28).

Regarding claim 3, Hoegnelid et al. shows said volume of electroactive particles is carried in at least one substantially thin layer around said implantable body (28, 32, 60, 62, 64, 66) (Figs. 3, 5a-5b).

With respect to claim 4, Hoegnelid et al. shows said volume of electroactive particles is carried in an interior layer of said implantable body (24, 24a, 28, 32, 24, 60, 62, 64, 66) (Figs. 1-5b, 8-11).

Regarding claim 5, Hoegnelid et al. shows exposed conductive element (8, 10, 10a, 40, 42, 44, 46) coupled to said volume of electroactive particles (Figs. 1-4, 8-10).

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With respect to claim 6, Hoegnelid et al. shows the implantable body comprises at least one elongate wire-like member (6, 38) (Figs. 1, 4).

The functional language and introductory statements of intended use have been carefully considered but are not considered to impart any further structural limitations over the prior art.

Regarding claim 9 Hoegnelid et al. shows a method comprising the steps of: implanting an implant body in a targeted site in a patient's vasculature wherein the implant body carries a self-contained electrical charge source (24, 24a, 28, 32, 24, 60, 62, 64, 66); and exposing body media within the targeted site to a selected electrical charge.

The thereby clause has been deemed to not to add additional limitations to the claim since enhancing the formation of thrombus in the targeted site is an intended outcome, rather than a recited step.

Regarding claim 13 Hoegnelid et al. shows a device comprising an implant body defining a length and cross section suitable for placement in a vascular malformation; and a voltage source (ions) (24, 24a, 28, 32, 24, 60, 62, 64, 66) carried within the implantable member (Col. 5, line 61-Col. 6, line 28).

Assuming arguendo that the length and cross section of the Hoegnelid et al. device is not suitable for placement in a vascular malformation, the examiner asserts that the distal tip of the Hoegnelid et al. device could be inserted in the vascular malformation rather than the **entire** length of the device

Regarding claims 17-18 Hoegnelid et al. shows a first or second conductive material (8, 10, 10a, 40, 42, 44, 46) coupled to the voltage source and exposed to an exterior body.

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The functional language and introductory statements of intended use have been carefully considered but are not considered to impart any further structural limitations over the prior art.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-12, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Hoegnelid et al. (5,458,630) in view of Holmstrom (5,391,191).

With respect to claims 10-12, Hoegnelid et al. is as explained before. Although Hoegnelid et al. fails to specifically point out that the electrical charge is positive, negative, or positive and negative, attention is directed to Holmstrom which teaches it is well known for pacemakers to provide positive and negative electrical charges in order to pace the heart (Fig. 2). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the method of Hoegnelid et al. to specifically apply positive and negative charges since it is well known for pacemakers to provide positive and negative electrical charges in order to pace the heart.

The thereby clause has been deemed to not to add additional limitations to the claims since causing current flow in the endovascular media is an intended outcome, rather than a recited steps.

Regarding claims 19, Hoegnelid et al. is as explained before. Although Hoegnelid et al. fails to specifically point out that the voltage source provides from about

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0.01 to 5 Volts, attention is directed to Holmstrom which teaches it is well known for pacemakers to voltage of 2.5V to 5.0 V to pace the heart (Col. 9, lines 3-61). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the voltage source of Hoegnelid et al. to specifically provide 2.5 to 5 Volts as Holmstrom teaches in order to pace the heart.

***Allowable Subject Matter***

8. Claims 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to teach or suggest a device comprising an implant body defining a length and cross section suitable for placement in a vascular malformation; and a voltage source carried within the implantable member and comprising an anode and a cathode of electroactive compositions and a separator element disposed therebetween.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bowald et al. (5,411,546) shows an three dimensional vascular electrode.

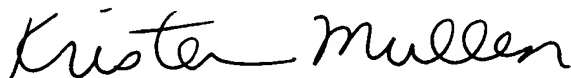
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristen Mullen whose telephone number is 703-605-1185. The examiner can normally be reached on 10:30 am-6:30 pm.



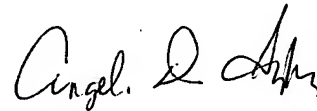
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 703-308-5181. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KDM



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